Project Management Indicator Species Report

Hammerhorn Campground Restoration and Salvage Project

Upper Lake Ranger and Covelo District

Mendocino National Forest

Prepared By: **Debra Henry**
District Wildlife Biologist
Upper Lake & Covelo Ranger District
05/25/2021

Introduction

The purpose of this report is to evaluate and disclose the impacts of the Hammerhorn Campground Restoration and Salvage on the habitat of the thirteen (13) Management Indicator Species (MIS) identified in the Mendocino National Forest Land and Resource Management Plan (LRMP) (USDA 1995). This report documents the effects of the proposed action and alternatives on the habitat of selected project-level MIS. Detailed descriptions of the Hammerhorn Campground Restoration and Salvage alternatives are found in the Categorical Exclusion NEPA document.

Direction Regarding the Analysis of Project-Level Effects on MIS Habitat

Project-level effects on MIS habitat are analyzed and disclosed as part of environmental analysis under the National Environmental Policy Act (NEPA). This involves examining the impacts of the proposed project alternatives on MIS habitat by discussing how direct, indirect, and cumulative effects will change the habitat in the analysis area.

Adequately analyzing project effects to MIS generally involves the following steps:

- Identifying which habitat and associated MIS would be either directly or indirectly affected by the project.
- Summarizing the bioregional-level monitoring identified in the LRMP, as amended, for this subset of MIS.
- Analyzing project-level effects on MIS habitat for this subset of MIS.
- Discussing bioregional scale habitat and/or population trends for this subset of MIS.
- Relating project-level impacts on MIS habitat to habitat and/or population trends at the bioregional scale for this subset of MIS.

Selection of Project level MIS

Management Indicator Species (MIS) for the Mendocino NF are identified in the LRMP (1995). The habitats and ecosystem components and associated MIS analyzed for the project were selected from this list of MIS, as indicated in Table 1. In addition to identifying the habitat or ecosystem components (1st column), the associated MIS (2nd column), the Table discloses whether or not the habitat of the MIS is potentially affected by the Hammerhorn Campground Restoration and Salvage (3rd column).

Table 1. Selection of MIS for Project-Level Habitat Analysis for the Hammerhorn Campground Restoration and Salvage Project.

Habitat or Ecosystem Component	Mendocino NF Management Indicator Species *Scientific Name*	Category for Project Analysis [1]
Snags	Acorn Woodpecker, Douglas tree squirrel, fisher, northern goshawk, marten, pileated woodpecker, northern spotted owl	3
Hardwoods	Acorn Woodpecker, black tailed deer, Douglas tree squirrel, Tule elk	2
Riparian	Bald Eagle, Black tailed deer, fisher, northern goshawk, marten, peregrine falcon, Tule elk	2
Meadow	Black-tailed deer, Tule elk	2
Brush field	Black-tailed deer, California thrasher	2
Old growth	Fisher, northern goshawk, marten, pileated woodpecker, northern spotted owl	2
Dead & Down	Fisher, northern goshawk, marten, pileated woodpecker, northern spotted owl	3
Lithic areas	Peregrine Falcon	2

The MIS whose habitat would be either directly or indirectly affected by the Hammerhorn Campground Restoration and Salvage Project, identified as Category 3 in Table 1, are carried forward in this analysis, which will evaluate the direct, indirect, and cumulative effects of the proposed action and alternatives on the habitat of these MIS. The MIS selected for project-level MIS analysis for the project are acorn woodpecker, Douglas tree squirrel, fisher, northern goshawk, marten, pileated woodpecker, and northern spotted owl. Effects to fisher, northern goshawk, marten, and northern spotted owl are discussed in more detail in the Biological Evaluation.

Category 2 species are not analyzed because the project does not remove or modify the habitats in which they are indicator species.

Description of Proposed Project

The Hammerhorn Campground Restoration and Salvage lies within the footprint of the 2020 August Complex wildfire that burned from August 16 through November 12 across California's northern Coast Range. It became the largest wildfire in California's recorded history. Within the Mendocino National Forest, the fire burned more than 612,000 of the forest's 913,300 acres. Thus, large areas of fire killed trees, many of which are adjacent to forest roads, pose a hazard to our forest users. In order to mitigate

[1] **Category 1:** MIS whose habitat is not in or adjacent to the project area and would not be affected by the project.
Category 2: MIS whose habitat is in or adjacent to project area but would not be either directly or indirectly affected by the project.
Category 3: MIS whose habitat would be either directly or indirectly affected by the project.

this risk and maintain our roads and the Hammerhorn Campground, the forest is proposing to remove trees that pose as hazards within the Hammerhorn Campground Restoration and Salvage project.

Proposed Action

The proposed action includes removing dead and dying trees along roads and within the Hammerhorn Campground that could pose a hazard to motorists and campers, salvage of dead and dying trees, site preparation, and planting trees in areas likely to struggle with natural regeneration. Site preparation can include prescribe fire, piling of debris followed by pile burning, which may be needed to reduce the accumulation of fuels post timber harvest.

The purpose of this project is to improve public safety by removing hazardous trees within the Hammerhorn Campground and along roads within and leading to the project area, salvaging fire killed or fire-damaged trees , and preparing the site in order to re-establish forested conditions. Accomplishing some of this work through a commercial timber sale will allow the forest to achieve its land management objectives in a cost-effective manner that also supports local economies. Funds generated through the commercial sale of fire-damaged timber are directly applied to the area's reforestation.

Replanting trees would accelerate the reforestation process and expedite recovery of forested ecosystems, meeting management objectives outlined in the Mendocino National Forest's forest plan and the 1976 National Forest Management Act. Reforestation is planned for areas that had experienced 98 percent or greater tree mortality from the wildfire, which reduced available seed sources and live trees necessary for natural propagation.

Silviculture proposed actions

The purpose and need of the silvicultural treatments in the Hammerhorn Campground Restoration and Salvage is to remove current and potential future hazard trees where they exist along roadsides and within Hammerhorn Campground. It is important to emphasize that in order to reduce exposure along roadsides, along with the importance of keeping our roads open, that the marking guides utilize the lower probability of mortality threshold since it is imperative that we prevent leaving additional trees that may die. Direct action is guided by the Mendocino National Forest Land and Resource Management Plan (1995) for matrix lands and late successional reserves.

The following proposed actions provide more detail about what's entailed within the project's reforestation objectives.

- **Reforestation**: About 250 acres within the project area are slated for reforestation. These areas are dominated by high fire severity burn patches that resulted in 98 percent or greater tree mortality or vegetation coverage loss, as measured by basal area from pre-fire conditions. Because of the large size of these patches and the intensity of the fire, few live trees are available to naturally reseed the area. Dead and dying trees would be removed in preparation for planting. Removal of trees could be accomplished by several means, such as cutting and removal of fuels or making merchantable timber available through a timber sale.

- **Sale of merchantable timber**: This project proposes making merchantable dead or fire - damaged trees on up to 250 acres in the vicinity of the Hammerhorn Campground available for sale. Some trees and snags will be retained to serve as seed sources for natural regeneration,

shade, and wildlife habitat. Trees reserved for habitat and propagation purposes will be marked for retention. Designated salvage units would be located on slopes less than 36 percent and away from inner gorges and unstable areas to minimize erosion. Harvested timber would be skidded to designated landing and access roads. Harvesting of trees would follow the "Tree Marking Guidelines for Fire-Injured Trees," which is based on guidelines developed by this regional headquarters' Forest Health Protection unit.

Trees species subject to removal through the timber sale include ponderosa pine, sugar pine, white fire, incense cedar, and Douglas-fir. Broadleaf trees, such as black oak and white oak, as well as species associated with riparian areas, such as California bay laurel, bigleaf maple, willow, and white alder, would not be removed unless they pose a safety or fuels hazard.

Large coarse woody debris (downed logs) would be retained or created to meet wildlife habitat requirements. Created woody debris and litter may be distributed throughout the treatment area to reduce erosion and rain runoff, as well as create microsites for planting and natural regeneration.

- **Planting**: Planting of seedlings would be concentrated in areas cleared of standing dead trees. Throughout the project area, selected seedling stock would be planted using hand tools or hand-held power augers. Tree density and species composition would be determined based on land designation and area topography. Seedlings of species most suitable for the area would be planted. Naturally sprouting California black oak and Oregon white oak would be protected during planting as would riparian tree and shrub species, such as California bay laurel, bigleaf maple, willow, white alder, and elderberry.

- **Release**: Within three years following planting, forest crews will manually "release" seedlings from competing vegetation. This would entail hand cutting or pulling up competing vegetation within a five-foot radius of the seedling.

- **Interplanting, second release, pre-commercial thinning**: Where planting or natural regeneration do not meet the required stocking standards because of poor survival or lack of natural regeneration, additional planting may occur. A second release could occur if shrubs and competing natural regeneration require removal to promote survival and growth of seedlings. Young trees may be thinned to densities best suited to meet project objectives and forest management plans.

- **Hazardous tree removal along roads within and leading to the project area**: Trees will be cut and either left in place or moved to an area that will not affect the safety of visitors.

Effects of Proposed Project on the Habitat for the Selected Project-Level MIS.

The following section documents the analysis for the following 'Category 3' species: acorn woodpecker, Douglas tree squirrel, fisher, northern goshawk, marten, pileated woodpecker, and northern spotted

owl. The analysis of the effects of the Hammerhorn Campground Restoration and Salvage project on the MIS habitat for the selected project-level MIS is conducted at the project scale.

Snags

Habitat/Species Relationship.

There are several species identified in the Mendocino NF LRMP that are indictors for snag habitat: Acorn Woodpecker, Douglas tree squirrel, fisher, northern goshawk, marten, pileated woodpecker, and northern spotted owl. Fisher, northern goshawk, marten, and northern spotted owl are discussed in the biological evaluation for the Hammerhorn Campground Restoration and Salvage Project.

Project-level Effects Analysis –

Habitat Factor(s) for the Analysis: Snags

Current Condition of the Habitat Factor(s) in the Project Area: Following the 2020 August Complex fire there is a plethora of snags on the landscape, fire killed or otherwise. Post-fire there is the potential for acorn and pileated woodpeckers to forage in the project area.

Proposed Action)

Direct and Indirect Effects to Habitat.

The Hammerhorn Campground Restoration and Salvage project removes hazard trees along the haul routes M21 and M1 and the alternative haul route (if chosen) is M21, M2, M4 and TEH55 that have trees that are an imminent hazard, they will be cut and left in place. This would increase CWD for the project as well. Since there is not a shortage of snags on the landscape the removal of hazard trees along the road would not have detrimental effects on snag dependent species. Additionally, in the campground snags and fire killed trees are hazards to the public camping there, so they will be removed as well to provide for public safety.

The Salvage portion of the project (treatment areas) is about 250 acres which burnt at high severity therefore management indicator species habitat has been destroyed. The effects of the Hammerhorn Campground Restoration and Salvage project will not cause any negative impacts to MIS because there is minimal suitable snag habitat in the treatment areas for the species since fire killed trees currently lack cavities for roosting. Non-merchantable conifers and hardwoods would be retained and would also continue to provide roosting cavities. This habitat was field verified by Gary Urdahl, Forester District Silviculturist and Debra Henry, District Wildlife Biologist on May 3, 2020.

Cumulative Effects to Habitat in the Analysis Area.

Majority of the Hammerhorn Campground Restoration and Salvage project area was burnt at a high severity from the 2020 August Complex Fire. There is the potential for more fires to burn through the area in the future due to climate change and dry conditions. There are no private land salvage operations occurring near the Hammerhorn Campground Restoration and Salvage project'

Cumulative Effects Conclusion:

The effects of the Hammerhorn Campground Restoration and Salvage project would not add to the effects of the other projects that have or will occur in the Hammerhorn Campground Restoration and Salvage project area.

Dead & Down

Habitat/Species Relationship.

There are several species identified in the Mendocino NF LRMP that are indictors for dead and down, coarse woody debris (CWD): fisher, northern goshawk, marten, pileated woodpecker, and northern spotted owl. Fisher, northern goshawk, marten, and northern spotted owl are discussed in the biological evaluation for the Hammerhorn Campground Restoration and Salvage project.

Project-level Effects Analysis –

Habitat Factor(s) for the Analysis: coarse woody debris, dead and down

Current Condition of the Habitat Factor(s) in the Project Area: The 2020 August Complex Fire likely consumed a lot of the dead and down within the project area. Trees and debris have collected since the fire, but it is not likely to resemble the conditions pre-fire.

Proposed Action)

Direct and Indirect Effects to Habitat.

Although the Hammerhorn Campground Restoration and Salvage project will not any of the dead and down, coarse woody debris (CWD) from the project, there is a requirement to maintain 5 to 20 tons/acre of course woody debris comprised of a minimum of four recently downed logs per acre. When present, focus retention on logs equal to or greater than 20 inches in diameter (large end), or the largest diameter logs available. Retained logs should range from 15 to 20 feet in length, with one log per acre greater than 20 feet in length.

Fuels treatments propose leaving between 5 – 20 tons/acre of down course woody material. This amount was indicated to be the optimum quantity of CWD for wildlife in warm dry ponderosa pine and Douglas-fir types (Brown et.al 2003). Retaining this amount of CWD will allow the forest to maintain legacy components needed for forests to develop into stands that are variable and complex.

The effects of the Hammerhorn Campground Restoration and Salvage project will not cause any negative impacts to MIS because there is low number of dead and down suitable habitat in the treatment areas for the species. This project will have a positive effect for MIS because the project will create more dead and down logs to provide habitat to MIS.

Cumulative Effects to Habitat in the Analysis Area.

The August Complex Fire also burned through this area in 2020. There are no known private land salvage operations occurring within the Hammerhorn Campground

Restoration and Salvage project area. Gary Urdahl, Forest Silviculturist, searched the Calfire GIS database on May 17, 2021 to verify that there are no Calfire projects are in the buffer area around the Salvage units.

Cumulative Effects Conclusion:

Similar to the cumulative effects to snags, the effects of the Hammerhorn Campground Restoration and Salvage project would not add to the effects of the other projects that have or may occur in the Hammerhorn Campground Restoration and Salvage project area.

SUMMARY

The project would not have significant adverse effects on pileated woodpeckers, acorn woodpeckers, gray squirrels, or Douglas squirrels, based on the following determinations:

➢ While snag numbers would be reduced within the units, an abundance of snags would remain both within and outside the treatment units.

➢ Treatment units are mostly within moderate to high severity burned stands. The resulting stand conditions (reduced canopy closures and 50 to 100% tree mortality) now provide low capability of suitable habitat for these species. Treatments would not further reduce the capability level.

Due to the small size of the project and the mitigation measures in place the Hammerhorn Campground Restoration and Salvage project would not have a negative effect on population trends for any of the indicator species or their habitats. Areas of untreated, unburned, low severity burn, as well as areas outside the fire boundary, continue to provide snag habitat for these species.

Therefore, my conclusion is that the proposed action would not have adverse effects on habitat for these species; and that the proposed action complies with the standards in the Forest Plan regarding site-specific evaluations for Management Indicator Species.

References Cited

Angwin, P.A., D.R. Cluck, P.J. Zambino, B.W. Oblinger, and W.C. Woodruff. 2012. Hazard tree guidelines for Forest Service facilities and roads in the Pacific Southwest Region. Forest Health Protection, Pacific Southwest Region. 40 pgs.

Brown, D. E., 1994: Alpine and subalpine; and montane meadow grasslands, 109-114. In Brown, D. E. (ed.), Biotic communities: southwestern United States and northwestern New Mexico. Salt Lake City, University of Utah Press, 342 pp.

Moore, M. M., and Deiter, D. A., 1992: Stand density index as a predictor of herbage production in northern Arizona pine forests. Journal of Range Management, 45: 267-271.

U.S. Forest Service (USFS). 1995. Final Environmental Impact Statement: Land and Resource Management Plan, Mendocino National Forest.